

APRIL/MAY 2024

**BEL53/CEL53 — ELECTRICAL AND
ELECTRONIC INSTRUMENTATION**

Time : Three hours

Maximum : 75 marks



SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define precision.
2. What is loading effect?.
3. What is the advantage of Schering's bridge?.
4. Mention the types of Maxwell's bridge.
5. Define deflection sensitivity.
6. State the significance of analog storage oscilloscope
7. Give the applications of digital Voltmeter.
8. What is wave analyzer?.
9. Give the features of audio tape recorder.
10. Write the features of LVDT.

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Discuss the conversion of galvanometer into shunt type ohmmeter

Or

- (b) Explain the electrostatic voltmeter.

12. (a) Elucidate the wheatstone bridge.

Or

- (b) Describe the Maxwell's bridge.

13. (a) Describe the electrostatic focusing.

Or

- (b) Explain the digital storage oscilloscope.

14. (a) Describe the function generator.

Or

- (b) Enumerate the fundamentals of spectrum analyser.

15. (a) Write a short note in resistance thermometer.

Or

- (b) Give a brief account on audio tape recorder.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Describe the PMMC galvanometer.

17. Explain the Schering's bridge.

18. Discuss the block diagram of oscilloscope.

19. Describe the digital voltmeter.

20. Explain the audio tape recorder.

